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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,830	08/09/2006	Guofu Zhou	US040104US2	6241

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EXAMINER

KUMAR, SRILAKSHMI K

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,830	Applicant(s) ZHOU ET AL.	
	Examiner SRILAKSHMI K. KUMAR	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following office action is in response to the newly filed application on August 9, 2006. Claims 1-20 are pending.

Specification

1. The abstract of the disclosure is objected to because the abstract should be on a separate sheet alone. Applicant has submitted the first page of the WO, PCT application for the abstract which is incorrect. Correction is required. See MPEP § 608.01(b).

2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zehner et al (WO 03/044765) in view of Zhou et al (WO 03/100515).

As to independent claim 1, Zehner et al teach a method for driving a bi-stable display (abstract), comprising: driving the bi-stable display (310) using cyclic rail-stabilized driving for at least one image transition, wherein the at least one image transition is realized either directly via a single drive pulse (D1), or indirectly via a reset pulse (R) and a drive pulse (D2) of opposite polarity (page 51, line 13-page 52, line 30, page 53, line 23-page 54, line 14, page 60, line 12-page 61, line 31). Zehner et al do not teach applying at least one set of shaking pulses (S1) to the

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bi-stable display, when the at least one image transition is realized indirectly. Zhou et al teach in Figs. 3-5, and page 6, line 14-page 7, line 5 applying at least one set of shaking pulses to the bi-stable display, wherein the at least one image transition is realized indirectly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the shaking pulses as taught by Zhou et al into Zehner et al in order to enhance brightness (page 6, lines 30-32).

As to dependent claim 2, limitations of claim 1, and further comprising, Zhou et al teach wherein: the applying the at least one set of shaking pulses comprises applying a first set of shaking pulses (S1) to the bi-stable display during at least a portion of the reset pulse (R) (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 3, limitations of claim 1, and further comprising, Zhou et al teach wherein: the applying the at least one set of shaking pulses comprises applying a first set of shaking pulses (S1) to the bi-stable display during at least a portion of the drive pulse (D2) of opposite polarity (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 4, limitations of claim 1, and further comprising, Zhou et al teach wherein: the applying the at least one set of shaking pulses comprises applying a first set of shaking pulses to the bi-stable display during at least a portion of a gap between the reset pulse (R) and the drive pulse (D2) of opposite polarity (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 5, limitations of claim 1, and further comprising, Zhou et al teach wherein: the applying the at least one set of shaking pulses comprises applying a first set of shaking pulses to the bi-stable display during at least a portion of the reset pulse (R) and the drive pulse (D2) of opposite polarity (Figs. 3-5, and page 6, line 14-page 7, line 5).

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As to dependent claim 6, limitations of claim 1, and further comprising, Zhou et al teach wherein: the applying the at least one set of shaking pulses comprises applying a first set of shaking pulses to the bi-stable display during at least a portion of the reset pulse (R), and applying a second set of shaking pulses to the bi-stable display during at least a portion of the drive pulse (D2) of opposite polarity (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 7, limitations of claim 1, and further comprising, Zhou et al teach wherein: the at least one set of shaking pulses includes at least one initial shaking pulse and at least one final shaking pulse; and an energy of the at least one initial shaking pulse is greater than an energy of the at least one final shaking pulse (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 8, limitations of claim 1, further comprising: Zhou et al teach applying a second set of shaking pulses (S2) to the bi-stable display prior to the single drive pulse (D1), when the at least one image transition is realized directly, and prior to the reset pulse (R) and the drive pulse (D2) of opposite polarity, when the at least one image transition is realized indirectly (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 9, limitations of claim 8, and further comprising, Zhou et al teach wherein: the second set of shaking pulses (S2) includes at least one initial shaking pulse (810) and at least one final shaking pulse (825); and an energy of the at least one initial shaking pulse (810) is greater than an energy of the at least one final shaking pulse (825) (Figs. 3-5, and page 6, line 14-page 7, line 5).

As to dependent claim 10, limitations of claim 1, and further comprising, Zehner et al teach wherein: the bi-stable display comprises an electrophoretic display (page 2).

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As to claims 11-13, these claims differ from claims 1-10, above only in that claims 11-13 are a program storage device tangibly embodying a program of instructions executable by a machine to perform a method, whereas claims 1-10 are directed to just a method. Thus claims 11-13 are analyzed as previously discussed with respect to claims 1-10, above.

As to claims 14-20, these claims differ from claims 1-10, above only in that claims 14-20 are directed to an apparatus, whereas claims 1-10 are directed to a method. Thus apparatus claims 14-20 are analyzed as previously discussed with respect to the method claims 1-10, above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SRILAKSHMI K. KUMAR whose telephone number is (571)272-7769. The examiner can normally be reached on 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Srilakshmi K Kumar/
Primary Examiner
Art Unit 2629

June 20, 2009
SKK